

MAIL ROOM

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)

Developing a Unified Inter-carrier)

Compensation Regime)

CC Docket No. 01-92)

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NOTICE OF PROPOSED RULEMAKING

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By the Commission: Chairman Powell and Commissioner Ness issuing separate statements;
Commissioner Furchtgott-Roth concurring and issuing a statement

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I. INTRODUCTION

1. With this *Notice of Proposed Rulemaking (NPRM)*, we begin a fundamental re-examination of all currently regulated forms of intercarrier compensation. We intend to test the concept of a unified regime for the flows of payments among telecommunications carriers that result from the interconnection of telecommunications networks under current systems of regulation. Specifically, we seek comment on the feasibility of a bill-and-keep approach for such a unified regime. We also seek alternative comment on modifications to existing intercarrier compensation regimes. In sum, we seek to move forward from the transitional intercarrier compensation regimes to a more permanent regime that consummates the pro-competitive vision of the Telecommunications Act of 1996 (“1996 Act”).¹

2. As discussed below, there are currently two general intercarrier compensation regimes: (1) access charges for long-distance traffic; and (2) reciprocal compensation.

¹ Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (“1996 Act”).

We believe it essential to re-evaluate these existing intercarrier compensation regimes in light of increasing competition and new technologies, such as the Internet and Internet-based services, and commercial mobile radio services (“CMRS”). We are particularly interested in identifying a unified approach to intercarrier compensation—one that would apply to interconnection arrangements between all types of carriers interconnecting with the local telephone network, and to all types of traffic passing over the local telephone network. The purpose of this *NPRM* is to seek comment on the broad universe of existing intercarrier compensation arrangements. In issuing this *NPRM*, we do not expect that we will extend intercarrier compensation rules to Internet backbones, on which we do not currently impose rate-making regulation. Neither do we expect to extend compensation rules to other interconnection arrangements that are not currently subject to rate regulation and that do not exhibit symptoms of market failure.² We do, however, seek comment on whether imposing any particular unified intercarrier compensation regime only with respect to rates that we currently regulate would lead to distortions or other problems that would undermine the benefits of that regime. We emphasize at the outset that we seek an approach to intercarrier compensation that will encourage efficient use of, and investment in, telecommunications networks, and the efficient development of competition. Consistent with the deregulatory goals of the 1996 Act, we seek an approach to intercarrier compensation that minimizes the need for regulatory intervention, both now and as competition continues to develop.

3. In a related order that we are adopting today (“*ISP Intercarrier Compensation Order*”),³ we address intercarrier compensation for traffic that is specifically bound for Internet service providers (“ISPs”). We adopt interim measures that, for the next three years, will significantly reduce, but not altogether eliminate, the flow of intercarrier payments associated with delivery of dial-up traffic to ISPs. In another order that we are adopting today (“*CLEC Access Charge Order*”),⁴ we address the access charges that long-distance carriers pay to competitive local exchange carriers (CLECs). We adopt another three-year interim measure, under which CLECs may file tariffs establishing access rates only if their rates are at or below a benchmark rate, to bring CLEC rates closer to incumbent local exchange carrier (“ILEC”) rates.

4. In this *NPRM*, we envision that a bill-and-keep regime would fulfill the goals of the two interim measures, combined with the larger goal of a unified regime. We seek comment on our proposal to adopt a bill-and-keep rule to govern local exchange carrier (“LEC”) recovery of costs associated with the delivery of ISP-bound traffic after the three-year interim period. We also seek comment on the potential adoption of a bill-and-keep approach to reciprocal compensation payments governed by section 251 of the 1996 Act, and the eventual application of bill and keep to interstate access charges regulated under section 201 of the Communications Act of 1934, as amended (“Communications Act”). With respect to all categories of currently-

² Thus, we do not contemplate a need to adopt new rules governing CLEC-to-CLEC, IXC-to-IXC, CMRS-to-CMRS or CMRS-to-IXC arrangements.

³ In the Matter of Intercarrier Compensation for ISP-Bound Traffic, CC Docket No. 99-68, *Order on Remand and Report and Order*, FCC 01-131 (rel. Apr. 27, 2001) (“*ISP Intercarrier Compensation Order*”).

⁴ In the Matter of Access Charge Reform; Reform of Access Charges Imposed by Competitive Local Exchange Carriers, CC Docket No. 96-262, *Seventh Report and Order*, FCC 01-146 (rel. Apr. 27, 2001) (“*CLEC Access Charge Order*”).

regulated intercarrier compensation, we also seek comment on alternative reform measures that would build upon current requirements for cost-based intercarrier payments.

II. BACKGROUND

A. Existing Intercarrier Compensation Regimes

5. Interconnection arrangements between carriers are currently governed by a complex system of intercarrier compensation regulations. These regulations treat different types of carriers and different types of services disparately, even though there may be no significant differences in the costs among carriers or services. The interconnection regime that applies in a particular case depends on such factors as: whether the interconnecting party is a local carrier, an interexchange carrier, a CMRS carrier or an enhanced service provider; and whether the service is classified as local or long-distance, interstate or intrastate, or basic or enhanced.

6. Existing intercarrier compensation rules may be categorized as follows: access *charge* rules, which govern the payments that interexchange carriers (“IXCs”) and CMRS carriers make to LECs to originate and terminate long-distance calls; and reciprocal *compensation* rules, which govern the compensation between telecommunications carriers for the transport and termination of local traffic. Such an organization is clearly an oversimplification, however, as both sets of rules are subject to various exceptions (*e.g.*, long-distance calls handled by ISPs using IP telephony are generally exempt from access charges under the enhanced service provider (ESP) exemption).⁵

7. The access charge rules can be further broken down into interstate access charge rules that are set by this Commission, and intrastate access charge rules that are set by state public utility commissions. Both the interstate and intrastate access charge rules establish charges that IXCs must pay to LECs when the LEC originates or terminates a call for an IXC, or transports a call to, or from, the IXC’s point of presence (“POP”). CMRS carriers also pay access charges to LECs for CMRS-to-LEC traffic that is not considered local and hence not covered by the reciprocal compensation rules. Other customers carrying traffic to or from points within an exchange area to points outside the exchange area may also pay access charges to the LEC. These access charges may have different rate structures—*i.e.*, they may be flat-rated or traffic-sensitive. In general, where a long-distance call passes through a LEC circuit switch, a

⁵ The phrases “Internet telephony” and “Internet Protocol telephony” (“IP telephony”) refer to similar, but distinct concepts. IP telephony involves the provision of a telephony service or application using Internet Protocol. IP telephony may be provided over the public Internet or over a private IP network. In contrast, Internet telephony is a subset of IP telephony that is distinguished by the fact that it is provided over the public Internet and uses the domain-name system for routing. *See, e.g.*, In the Matter of Federal-State Joint Board on Universal Service, **Report to Congress**, 13 FCC Rcd. 11501, 11541-51 ¶¶ 83-104 (“**Stevens Report**”) (discussing Internet and IP telephony); HARRY NEWTON, NEWTON’S TELECOM DICTIONARY 378 (14th ed. 1998). For simplicity, the text will refer generally to the broader concept of IP telephony.

IP telephony can also be categorized by the equipment used to provide the service. For example, IP telephony may be provided using two personal computers (“computer-to-computer” IP telephony); the service may be provided between a computer and a standard telephone using a single IP gateway (“computer-to-phone” IP telephony); or it may be provided using two standard telephones that connect through two IP gateways (“phone-to-phone” IP telephony). *See, e.g.*, **Stevens Report**, 13 FCC Rcd. at 11543-44 ¶¶ 87-89.

per-minute charge is assessed. In order to keep local telephone rates low, access charges have traditionally exceeded the forward-looking economic costs of providing access.⁶

8. Section 251(b)(5) imposes on all LECs a “duty to establish reciprocal compensation arrangements for the transport and termination of telecommunications.”⁷ Under current Commission rules interpreting the reciprocal compensation obligations of *incumbent* LECs, the calling party’s LEC must compensate the called party’s LEC for the additional costs associated with transporting the call from the carriers’ interconnection point to the called party’s end office, and for the additional costs of terminating the call to the called party.⁸ The Commission’s rules further require that the charges for both transport and termination must be set at forward-looking economic costs.⁹ The Commission’s rules permit a state public utility commission (“PUC”) to impose a bill-and-keep arrangement, provided that the traffic exchanged between the interconnecting carriers is relatively balanced and neither party has rebutted the presumption of symmetric rates.”

9. Existing access charge rules and the majority of existing reciprocal compensation agreements require the calling party’s carrier, whether LEC, IXC or CMRS, to compensate the called party’s carrier for terminating the call. Hence, these interconnection regimes may be

⁶ See In the Matter of Federal-State Joint Board on Universal Service, **Report and Order**, 12 FCC Rcd. 8776 (1997) (“**Universal Service Order**”). See also GERALD W. BROCK, TELECOMMUNICATION POLICY FOR THE INFORMATION AGE: FROM MONOPOLY TO COMPETITION 189-93 (1994); PETER W. HUBER, MICHAEL K. KELLOGG & JOHN THORNE, FEDERAL TELECOMMUNICATIONS LAW 552 (2d ed. 1999). Following the passage of the 1996 Act, the Commission, in addition to implementing the local competition provisions and reforming existing universal service subsidies, also initiated a proceeding to reform access charges. Specifically, in May 1997, the Commission concluded that it would, in the first instance, allow market forces to drive interstate access charges to economic cost. As a back-stop, however, the Commission ordered price cap ILECs to file forward-looking economic cost studies on or before February 8, 2001. See In the Matter of Access Charge Reform, **First Report and Order**, 12 FCC Rcd. 15987, 16003 ¶ 48 (1997) (“**Access Charge Reform**”). See also In the Matter of Access Charge Reform, CC Docket No. 96-262, **Sixth Report and Order**, 15 FCC Rcd. 12962 (2000) (“**CALLS Order**”) (adopting CALLS proposal and allowing price cap ILECs to opt out of CALLS in anticipation of completion of cost study proceeding).

⁷ 47 U.S.C. § 251(b)(5). In addition, section 252(d)(2) imposes additional requirements on reciprocal compensation agreements involving an ILEC. 47 U.S.C. § 252(d)(2).

⁸ 47 U.S.C. § 252(d)(2)(A). See also In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, **First Report and Order**, 11 FCC Rcd. 15499, 16024-25 ¶¶ 1056-59 (1996) (“**Local Competition Order**”), aff’d in part and vacated in part sub nom. *Competitive Telecommunications Ass’n v. FCC*, 117 F.3d 1068 (8th Cir. 1997) and *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), aff’d in part and remanded, *AT&T v. Iowa Utils. Bd.*, 525 U.S. 366 (1999). In the **Local Competition Order**, the Commission also concluded that “the new transport and termination rules should be applied to LECs and CMRS providers.” **Local Competition Order**, 11 FCC Rcd. at 16016-17 ¶ 1043.

⁹ 47 C.F.R. § 51.705. See also **Local Competition Order**, 11 FCC Rcd. at 16054-58 ¶¶ 1111-18. Carriers are permitted to receive compensation only for “the traffic-sensitive components of local switching,” and not for local loop costs, which are not considered traffic sensitive. **Local Competition Order**, 11 FCC Rcd. at 16024-25 ¶ 1057.

¹⁰ **Local Competition Order**, 11 FCC Rcd. at 16054-58 ¶¶ 1111-18; 47 U.S.C. § 252(d)(2)(B). For purposes of this *NPRM*, we define a bill-and-keep arrangement as an intercarrier Compensation mechanism in which there are no termination charges—;e.. a mechanism in which the called party’s carrier is not allowed to recover any of the cost of the called party’s loop or local switch from an interconnecting carrier. As will become clear below, the treatment of transport costs may vary.

referred to as “*calling-party’s-network-pays*” (or “CPNP”). Such CPNP arrangements, where the calling party’s network pays to *terminate* a call, are clearly the dominant form of interconnection regulation in the United States and abroad.” An alternative to such CPNP arrangements, however, is a “*bill-and-keep*” arrangement. Because there **are** no termination charges under a bill-and-keep arrangement, each carrier is required to recover the costs of termination (and origination) from its own end-user customers.¹² As previously noted, under the Commission’s rules, state PUCs may impose bill-and-keep arrangements on interconnection agreements involving an ILEC, provided that the traffic between the carriers is relatively balanced and neither carrier has rebutted the presumption of symmetrical rates. In addition, bill-and-keep arrangements are found in interconnection agreements between adjacent ILECs.¹³ Finally, some Internet backbones have voluntarily negotiated interconnection agreements that resemble bill-and-keep arrangements.¹⁴

10. Finally, when entities connect to telephone networks as end users rather than as interconnecting networks, they do not pay usage-sensitive access or reciprocal compensation charges. For example, residential customers typically pay flat-rated subscription charges (or occasionally, local measured service rates), while business customers typically pay a flat monthly charge, plus a per-minute or per-call charge for originating calls. ESPs, including ISPs, are charged pursuant to the same rules that apply to local end users and are exempt from access and reciprocal compensation charges, even though the calls they send and receive generally travel outside the local service area.¹⁵ We also note that paging networks, which primarily *receive* traffic, are treated as networks under our existing reciprocal compensation rules.¹⁶ Payphone companies, which primarily *originate* traffic, are treated as end-user customers.¹⁷

¹¹ JEAN-JACQUES LAFFONT & JEAN TIROLE, *COMPETITION IN TELECOMMUNICATIONS* 4-8 (2000).

¹² As discussed below, there are a number of alternative ways to allocate transport costs under a bill-and-keep arrangement. See *infra* Section III.B.2.

¹³ See Comments of Time Warner Communications Holdings Inc., CC Docket No. 96-98 at 100 (May 16, 1996); Comments of American Communications Services, Inc., CC Docket No. 96-98 at 23 (May 16, 1996).

¹⁴ See Michael Kende, *The Digital Handshake: Connecting Internet Backbones* at 4-8 (Federal Communications Commission, OPP Working Paper No. 32, Sept. 2000).

¹⁵ The Commission has stated that the reciprocal compensation provisions of the 1996 Act, 47 U.S.C. § 251(b)(5), do not apply to ISP-bound traffic, but has allowed the states to require reciprocal compensation under existing interconnection agreements. In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Intercarrier Compensation for ISP-Bound Traffic, *Declaratory Ruling in CC Docket No. 96-98 and Notice of Proposed Rulemaking in CC Docket No. 99-68*, 14 FCC Rcd. 3689, 3703-06 ¶¶ 21-27 (1999). The D.C. Circuit reversed and remanded it to the Commission. See *Bell Atlantic Tel. Cos. v. FCC*, 206 F.3d 1 (D.C. Cir. 2000). In an order released today, the Commission adopts an interim measure that aims to move away from the current reciprocal compensation regime for ISP-bound traffic, over a three-year period. See *ISP Intercarrier Compensation Order*, *supra* note 3.

¹⁶ *Local Competition Order*, 11 FCC Rcd. at 16043 ¶ 1092

¹⁷ *Id.* at 15936 ¶ 876.

B. Issues Raised by Existing Interconnection Regulations

11. The existing intercarrier compensation rules raise several pressing issues. First, and probably most important, are the opportunities for regulatory arbitrage¹⁸ created by the existing patchwork of intercarrier compensation rules. One source of regulatory arbitrage appears to be inefficient reciprocal compensation rates. As we explain in the *ISP Intercarrier Compensation Order* released today, these rates, whether they are inefficiently structured or set too high, do not simply compensate the terminating network, but also appear to generate profits for each minute that is terminated, thus creating a potential windfall for networks that primarily or exclusively receive traffic.’’ As a result of these inefficient termination charges, certain CLECs appear to have targeted customers that primarily or solely receive traffic, particularly ISPs, in order to become net recipients of local traffic.²⁰

12. Another source of regulatory arbitrage arises from the different rates that different types of service providers must pay for essentially the same types of calls. For example, the fact that an IXC must pay access charges to the LEC that originates a long-distance call, while an ISP that provides IP telephony does not, gives the provider of IP telephony an artificial cost advantage over providers of traditional long-distance service. Similarly, a long-recognized form of regulatory arbitrage is the ability of certain owners of private branch exchanges (“PBXs”) to avoid paying access charges on long-distance calls (the “leaky PBX” problem).²¹ More generally, any discrepancy in regulatory treatment between similar types of traffic or similar categories of parties is likely to create opportunities for regulatory arbitrage. That is, parties will revise or rearrange their transactions to exploit a more advantageous regulatory treatment, even though such actions, in the absence of regulation, would be viewed as costly or inefficient.

13. A second major issue involves *terminating access monopolies*. This problem results from the fact that an end user typically subscribes to only one LEC. Hence, other carriers seeking to deliver calls to that end user have no choice but to purchase terminating access from

¹⁸ The phrase “regulatory arbitrage” refers to profit-seeking behavior that can arise when a regulated firm is required to set different prices for products or services with a similar cost structure. *See, e.g.*, Patrick DeGraba, *Bill and Keep at the Central Office as the Efficient Interconnection Regime* at 1 ¶ 2 n.3 (Federal Communications Commission, OPP Working Paper No. 33, Dec. 2000).

¹⁹ *ISP Intercarrier Compensation Order* at ¶ 70 (ILECs assert that CLECs terminate an average of 18.21 and even 40 times more traffic than they originate, and that 90 percent of CLEC reciprocal Compensation billings are for ISP-bound traffic).

²⁰ *Id.* at ¶¶ 38-39.

²¹ The “leaky PBX” problem arises where large end users that employ multiple PBXs in multiple locations lease private lines to connect their various PBXs. Although these lines were intended to permit employees of the large users to communicate between locations without incurring access charges, some large users permitted long-distance calls to leak from the PBX into the local public network where they were terminated without incurring access charges. In order to address this problem, the Commission in 1983 imposed a \$25 per month charge on each trunk that could “leak” traffic into the public switched network. *See* 47 C.F.R. § 69.115. *See generally* In the Matter of MTS and WATS Market Structure, *Memorandum Opinion and Order*, 97 FCC 2d 682 (1983); *Memorandum Opinion and Order*, 97 FCC 2d 834 (1984).

the called party's LEC.²² These originating carriers generally have little practical means of affecting the called party's choice of access provider. Indeed, as we explain in the *CLEC Access Charge Order* released today, a number of CLECs, whose terminating access charges are not regulated, have taken advantage of this situation by charging terminating access rates that significantly exceed those charged by rate-regulated ILECs.²³ As described in the order, we find that, absent intervention, the current disputes between CLECs and IXC's over access rate levels could disrupt the ubiquitous interconnectedness that consumers expect of the public switched telephone network.²⁴ We adopt, as an interim measure, a detariffing regime in which CLECs may file tariffs establishing access rates only if the rates are at or below a benchmark rate.²⁵ Rates above the benchmark may not be tariffed.²⁶ The benchmark is designed to bring CLEC rates closer to ILEC rates over the three-year period that these interim measures are in place.²⁷

14. The terminating access problem is exacerbated by rate averaging policies that are adopted voluntarily by the carrier, or required by regulation such as section 254(g).²⁸ Rate averaging prevents carriers from passing on termination charges directly to the particular customers whose calls give rise to those charges. Because the originating carrier is effectively unable to pass on termination costs to particular end-user customers or to create incentives for end users to choose LECs with low termination charges, the end user who chooses the LEC with the high termination charges does not have an incentive to minimize costs. We note, in this regard, that even if averaging policies were eliminated, it is unclear whether calling parties could, due to transaction-cost considerations, effectively induce called parties to choose LECs with low termination charges.

15. A related terminating access issue may arise where LECs also provide interexchange services in competition with IXC's. Certain IXC's have argued that, where access charges exceed economic cost, ILECs, and in particular the Regional Bell Operating Companies

"With regard to wireless networks, we recognize that, where a customer subscribes to both a wireless and a wireline network, the wireline network does not have a complete monopoly over termination. We believe, however, that the customer's possession of a wireless number does not completely resolve all terminating access issues. Since wireless customers are generally charged per-minute rates when they receive calls, they have an incentive to receive calls on their wireline phones. To encourage this, wireless customers frequently withhold their wireless numbers, both directly, and from directory databases. In turn, many callers respect this preference by choosing to call the customer's wireline number before trying the wireless number.

²³ See *CLEC Access Charge Order*, *supra* note 4; see also In the Matter of Access Charge Reform, *Fifth Report and Order and Further Notice of Proposed Rulemaking*, 14 FCC Rcd. 14221, 14338-49 ¶¶ 236-257 (1999) ("*Pricing Flexibility Order and NPRM*"); Petition for Declaratory Ruling filed by AT&T Regarding Interexchange Carrier Purchases of Switched Access Services Offered by Competitive Local Exchange Carriers (Oct. 23, 1998).

²⁴ *CLEC Access Charge Order* at ¶ 24.

²⁵ *Id.* at ¶ 40.

²⁶ *Id.*

²⁷ *Id.* at ¶ 49.

²⁸ Section 254(g) requires IXC's to geographically average access charges. See 47 U.S.C. § 254(g); see also *CLEC Access Charge Order* at ¶ 9.

("RBOCs"), may have the incentive and ability to discriminate in favor of their long-distance affiliates by engaging in a predatory price squeeze.²⁹

16. Third, questions have arisen recently whether different types of networks require different interconnection rates. Specifically, in the *Local Competition Proceeding*, the Commission established a presumption that, for reciprocal compensation agreements involving an ILEC, the termination rate should be symmetrical and based on the ILEC's forward-looking, traffic-sensitive cost of terminating the call.³⁰ A recent study argues, however, that the traffic-sensitive costs of terminating calls on wireless networks may differ from the traffic-sensitive costs of the ILEC's wireline networks.³¹ In addition, certain ILECs have argued that the various CLECs targeting ISPs as customers have designed their networks so as to reduce the traffic-sensitive costs of termination. These arguments suggest that, under existing reciprocal compensation rules, regulators may have to evaluate the specific costs of terminating traffic on different types of networks, and then carry out this exercise repeatedly as technology and prices continue to change.

17. Fourth, inefficient intercarrier compensation rules likely distort the structure and level of end-user charges. Typically, our existing rules allow, and in some cases require, interconnection charges to be set on a traffic-sensitive basis (*i.e.*, on a per-minute or per-call basis). Because these traffic-sensitive termination charges represent real marginal costs to the carrier that pays them, they impose pressure on the calling party's carrier to flow these costs through to end-user customers and to adopt traffic-sensitive retail prices. If the underlying network costs are non-traffic sensitive, however, then these traffic-sensitive retail rates will reduce network usage to inefficient levels. In addition, such traffic-sensitive termination charges may create incentives for carriers to charge higher prices for calls that cross networks, than for calls that remain on the calling party's network.

18. Finally, inefficient interconnection prices may distort an entity's subscription decision. For example, the availability of termination charges (either access charges or reciprocal compensation charges) that are inefficiently structured or above-cost may create incentives for an entity that primarily or exclusively receives traffic to claim to be a network rather than to subscribe as an end-user customer.³² In addition, to the extent that carriers are allowed to charge a higher rate for calls that go off their networks ("off-net" calls) than for calls that remain on their networks ("on-net" calls), this may cause subscribers to choose larger networks, which could cause competitive networks to tip into monopoly.

²⁹ See, e.g., In the Matter of Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC's Local Exchange Area, CC Docket No. 96-149, *Second Report and Order*, 12 FCC Rcd. 15756, 15826-33 ¶¶ 120-30 (1997); *Access Charge Reform*, 12 FCC Rcd. at 16100-05 ¶¶ 275-84.

³⁰ *Local Competition Order*, 11 FCC Rcd. at 16040-41 ¶¶ 1085-86.

³¹ Bridger M. Mitchell & Padmanabhan Srinagesh, *Transport and Termination Costs in PCS Networks: An Economic Analysis* at 20-21 (Sprint PCS, White Paper, Apr. 4, 2000) ("*Sprint PCS Study*").

³² See DeGraba, *supra* note 18, at 32-33 ¶ 113.

C. Economic Rationales for Intercarrier Compensation

1. Traditional Rationale for Calling-Party's-Network-Pays Regimes

19. Modern economic analysis of intercarrier compensation dates to the introduction of competition into the long-distance market in the United States. Given this background, it is not surprising that mainstream economic analyses have generally focused on the problem of setting both end-user rates and access charges so as to recover the full costs of a local network while at the same time ensuring efficient usage of the network.³³ Because these studies assumed that local networks exhibit increasing returns to scale, setting price equal to marginal cost would not generate sufficient revenues to cover the total cost of the network. Accordingly, the authors generally applied Ramsey-type analysis to determine the optimal increase of price above marginal cost for each service provided over the network, including the price of access to the network.³⁴ Two features of these traditional analyses are particularly noteworthy. First, in defining the problem, these studies took as a given that local exchange carriers would charge other carriers for access to their networks. In other words, these models did not explicitly consider *whether* carriers should charge other carriers interconnection prices; rather, they only examined the efficient level of those charges *assuming* that they were assessed. Second, while the authors recognized that both parties to a call generally benefited from a call,³⁵ they nevertheless assumed that the calling party was the sole cost causer of the call.³⁶ They made this simplifying assumption not only to make the analysis more tractable, but also because they

³³ More formally, these mathematical models have maximized a social welfare function (usually the sum of consumers' and producers' surpluses) subject to the constraint that the LEC break even or earn a normal return. For example, Willig considered the problem of setting optimal prices for access and network services in a model where the ILEC is the monopoly provider of access and local usage, but competes in providing various non-local services. While recognizing that consumers generally benefit from both incoming and outgoing calls, Willig argued that one could develop optimal access charges by billing only the calling party's network for outgoing calls. See Robert D. Willig, *The Theory of Network Access Pricing*, in ISSUES IN PUBLIC UTILITY REGULATION 109 (H. Trebing, ed. 1979). More recently, Laffont and Tirole considered optimal pricing rules in models of both "one-way access" (*i.e.*, LECs providing access to long-distance carriers) and "two-way access" (*i.e.*, two competing local networks compensating each other for terminating calls originating on each other's network). See, *e.g.*, JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11, at 179-215.

³⁴ Ramsey pricing is a form of non-uniform pricing that is used in situations where setting price equal to marginal cost would not allow a firm to recover all its costs. More specifically, in decreasing cost industries where marginal-cost pricing would result in deficits, Ramsey analysis provides a rule for setting prices above marginal cost. where the deviation of price from marginal cost depends on the price elasticities of demand, including cross-price elasticities of demand, for the firm's product. See generally Frank Ramsey, *A Contribution to the Theory of Taxation*, 37 ECON. J. 47 (1927); KENNETH E. TRAIN, *OPTIMAL REGULATION: THE ECONOMIC THEORY OF NATURAL MONOPOLY* 115-45 (1992).

³⁵ See, *e.g.*, Lyn Squire, *Sortie Aspects of Optimal Pricing for Telecommunications*, 4 BELL J. ECON. 5 15 (1973) (noting that the called party generally benefits from receiving a call); Willig, *supra* note 33, at 114, 124-28.

³⁶ We recognize that some parties have argued, in discussions of access charge reform, that both the calling party and her IXC are the "cost causers" of long-distance calls. See, *e.g.*, *CALLS Order*, 15 FCC Rcd. at 12999-13000 ¶¶ 93-95. We note, however, that the Commission has uniformly found that it is the calling party, and not its IXC, that "causes" the cost of the long-distance call. *Id.* As discussed below, the more immediate issue is whether the calling party is the sole cost causer of a call, or whether the calling party and called party are joint cost causers. See *infra* Section III.B.1.

believed that the parties could solve (or “internalize”) any externality caused by charging only the calling party by simply trading phone calls.³⁷

20. Bill-and-keep arrangements are generally considered inefficient under traditional analyses of intercarrier compensation. More specifically, if one assumes that the calling party should pay the cost of the terminating carrier, then a bill-and-keep arrangement is only efficient if the cost of transporting and terminating a call is zero. If there is a positive cost of termination, which most analyses have assumed, then a bill-and-keep arrangement is inefficient because it will cause originating carriers (and calling parties) to overuse other carriers’ termination facilities.³⁸ Despite this, the Commission, recognizing that bill-and-keep arrangements could reduce “administrative burdens and transaction costs,” held in the *Local Competition Proceeding* that state PUCs could impose bill-and-keep arrangements “if traffic is roughly balanced in the two directions and neither carrier has rebutted the presumption of symmetrical rates.”³⁹

21. As discussed below, however, subsequent analyses have cast doubt on the assumption that the calling party is the sole cost causer and sole beneficiary of a call, and on the traditional view that bill-and-keep arrangements are only efficient in certain narrow circumstances.

2. New Approaches to Intercarrier Compensation

22. In light of the issues discussed in section II.B above, Commission staff members have released two working papers that propose alternative solutions to these intercarrier compensation problems. While the two papers differ significantly in their details, both offer justifications for a bill-and-keep approach to intercarrier compensation. Both working papers also propose default interconnection rules that would apply only when carriers cannot agree on the terms for interconnection.

23. *Central Office Bill and Keep (COBAK)*. Patrick DeGraba proposes default interconnection rules that would apply to all types of carriers that interconnect with, and to all types of traffic that pass over, the local circuit-switched network. Specifically, for local calls involving two local networks, DeGraba proposes two rules: (1) that no carrier may recover any costs of its customers’ *local access facilities* from an interconnecting carrier;⁴⁰ and (2) that the calling party’s network is responsible for the cost of transporting the call to the called party’s

³⁷ An externality occurs where there is a divergence between private and social costs and benefits. See, e.g., WILLIAM J. BAUMOL, *ECONOMIC THEORY AND OPERATIONS ANALYSIS* 517-20 (4th ed. 1977). In this case, the externality occurs because both the calling party and called party benefit from the call, but only the calling party is charged for the call. The parties can solve this externality by taking turns calling each other, so that both parties will pay for the cost of the call as well as benefiting from the call. See, e.g., Willig, *supra* note 33, at 128.

³⁸ See, e.g., *Local Competition Order*, 11 FCC Rcd. at 16055 ¶ 1112.

³⁹ *Id.*

⁴⁰ DeGraba defines *local access facilities* as consisting of the loop serving the customer’s premises and the central office that serves the customer’s loop. DeGraba, *supra* note 18, at 9 ¶ 23.

central office.⁴¹ As DeGraba explains, his Rule 1 means that the called party's network cannot charge the calling party's network to terminate a call. DeGraba's Rule 2 means that the calling party's network must either construct transport facilities to the called party's central office, or purchase transport facilities or services from another carrier, including possibly the called party's network. As DeGraba explains, the main theoretical rationale underlying his proposal is that both parties generally benefit from participating in a call, and therefore, that both parties should split the cost of the call. Notice that DeGraba's theoretical rationale, that both parties should split the cost since both benefit, provides a rebuttal to the traditional criticism of bill-and-keep arrangements—*i.e.*, that they do not properly assign the cost of the call to the cost causer.

24. DeGraba claims various additional advantages of COBAK. First, he claims that COBAK will significantly reduce regulatory arbitrage, including the ISP reciprocal compensation problem and the regulatory advantage that IP telephony providers currently have over traditional IXCs. Second, he argues that, by eliminating termination charges, COBAK will eliminate, or significantly reduce, the terminating access monopoly problem. Third, by eliminating most per-minute interconnection charges, DeGraba argues that COBAK should lead to more efficient retail rates and thus more efficient network usage. Finally, he contends that COBAK will reduce the need for regulatory intervention—specifically, the need for regulators today to determine the economically efficient level and structure of termination charges, and in the longer term, to regulate transport rates.⁴²

25. Split the Incremental Cost of Interconnection. Approaching the problem from a different perspective, Jay Atkinson and Christopher Barnekov develop an analysis that also supports a default bill-and-keep interconnection regime. Emphasizing the goals of efficiency and competitive neutrality, Atkinson-Barnekov propose “Bill Access to Subscribers—Interconnection Cost Split” (“BASICS”). BASICS consists of two rules: (1) networks should recover all intra-network costs from their end-user customers; and (2) networks should divide equally the costs that result purely from interconnection.

26. Atkinson-Barnekov develop their analysis in the context of “fully-provisioned networks”—*i.e.*, networks that have sufficient capacity to allow their subscribers to make and receive all calls as they wish. They then extend this analysis to less fully provisioned networks, showing that if a network chooses to lower its quality of service (*i.e.*, the probability of a call getting through falls below 100 percent), then calls entirely within that network are affected, together with interconnecting calls. However, service quality within the network of the other interconnecting carrier is not degraded by this choice. The facilities required within a network to handle calls to and from that network's own subscribers are considered “intra-network costs” in the Atkinson-Barnekov analysis.

27. For fully provisioned networks that face the same costs per unit of facilities, the Atkinson-Barnekov proposal results in an equal per-subscriber cost for the two interconnecting

⁴¹ *Id.* For interexchange calls. DeGraba's second rule is modified to make the calling party's LEC responsible for delivering the call to the IXC's point of presence (“POP”) and the calling party's IXC responsible for delivering the call to the called party's central office. *Id.* at 10 ¶ 28.

⁴² *Id.* at 22-29 ¶¶ 75-101, 34-35 ¶ 121-24.

networks. This cost per subscriber is also equal to that of a single network containing the subscribers of both interconnecting networks, so that interconnection is equivalent to subscription. More generally, Atkinson-Barnekov show that their proposed rule does not distort whatever cost and quality relationship the networks had before interconnecting. They argue that the rule is competitively neutral in this sense.⁴³

28. Two important assumptions underlie the Atkinson-Barnekov analysis. The first assumption is that one can clearly distinguish between a carrier's "intra-network costs" and "the incremental cost of interconnection." The second underlying assumption is that the incremental costs of interconnection involve primarily capacity costs that should be recovered through flat charges. Accepting this latter assumption eliminates the need for traffic-sensitive interconnection charges.

29. Atkinson-Barnekov assert that, if their theoretical solution can be implemented, it would induce interconnecting carriers to negotiate efficient interconnection agreements. In the presence of a competitive transport market, regulators would not need to intervene unless normal negotiation and arbitration procedures failed to produce agreement.⁴⁴ Atkinson-Barnekov also assert that their proposal avoids the problems of common cost allocation entirely. They further claim that their proposal produces an efficient allocation of interconnection costs between carriers regardless of the balance of traffic between networks, or how the calling and called parties bear the cost of a call.⁴⁵

30. Notice that Atkinson-Barnekov's Rule 1 is similar to DeGraba's Rule 1. Whether they are identical depends on how one interprets Atkinson-Barnekov's definition of "intra-network costs," and the details of DeGraba's definition of "local access facilities."⁴⁶ Atkinson-Barnekov's Rule 2 clearly differs from DeGraba's second rule. Nevertheless, both rules attempt to achieve an efficient allocation of transport costs. The main difference appears to be that DeGraba intentionally chooses an inefficient default rule for transport costs in order to prevent free-riding and to encourage voluntary negotiation, while Atkinson-Barnekov choose a rule that possesses certain efficiency properties.

⁴³ Thus, if end-user prices are based on cost, splitting interconnection costs does not bias end users' choices between networks or between technologies. Atkinson-Barnekov argue that, in this sense, their proposal satisfies their goal of competitive neutrality. Jay M. Atkinson & Christopher C. Barnekov, *A Competitively Neutral Approach to Network Interconnection* at 13-15 ¶¶ 33-38 (Federal Communications Commission, OPP Working Paper No. 34, Dec. 2000).

⁴⁴ *Id.* at 8 ¶ 18.

⁴⁵ *Id.* at 15 ¶ 38.

⁴⁶ Atkinson-Barnekov adopt a general theoretical approach to intercarrier compensation, but in the context of various stylized network models. DeGraba, in contrast, appears to adopt a more explicit approach by attempting to clearly define the boundary between "local access" and "transport" facilities.

111. DISCUSSION

A. Appropriate Goals for Inter-carrier Compensation Rules in Competitive Markets

31. It is well recognized that regulators, including this Commission, have long used inter-carrier compensation rules to achieve multiple goals.⁴⁷ One of the main goals of this Commission in setting inter-carrier compensation rules in recent years has been to encourage efficiency. Thus, for example, the Commission has repeatedly emphasized the need to establish efficient rate structures and efficient rate levels.⁴⁸ But efficiency has not been the only goal of inter-carrier compensation rules. For example, in order to encourage universal service, this Commission and state regulators historically set access charges above cost. By doing so, they hoped to be able to keep local telephone rates low, and thus telephone penetration rates high. Similarly, in order to encourage the development of enhanced services, this Commission in 1983 exempted ESPs from having to pay carrier access charges.⁴⁹

32. With the passage of the 1996 Act, and its mandate for opening all telecommunications markets to competition, it is no longer clear that inter-carrier compensation rules can serve all of these multiple goals. For example, Congress, in passing the 1996 Act, recognized that the implicit subsidies historically contained in access charges are not sustainable in competitive local telecommunications markets.⁵⁰ Accordingly, Congress in the 1996 Act directed this Commission and the states to reform universal service, and in particular, to eliminate implicit subsidies contained in access charges and instead make all universal service support explicit.⁵¹

33. In light of the major recent changes in telecommunications markets, including the passage of the 1996 Act and the resulting increase in competition in local telephone markets, and the rapid technological changes that have been occurring in telecommunications, we seek comment on the appropriate goals for inter-carrier compensation regulations. In particular, we seek comment on whether efficiency should be the sole or paramount goal of inter-carrier compensation policy. We also seek comment on how we should evaluate whether a particular inter-carrier compensation regime encourages efficiency. More specifically, should we consider whether a particular pricing regime encourages the efficient use of the network by end-user customers? Should we also consider whether a particular pricing regime encourages the efficient investment in, and deployment of, network infrastructure, including investment in broadband

⁴⁷ See, e.g., JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11, at 98 (noting that interconnection regulation generally “must reflect multiple objectives”).

⁴⁸ See, e.g., *Local Competition Order*, 11 FCC Rcd. at 15874-79 ¶¶ 743-57; *CALLS Order*, 15 FCC Rcd. at 12970 ¶¶ 19-20.

⁴⁹ See *MTS and WATS Market Structure*, 97 FCC 2d at 711-12 (1983).

⁵⁰ See S. REP. NO. 103-367 (1994).

⁵¹ 47 U.S.C. § 254(e). See also H.R. CONF. REP. NO. 104-458 at 131 (1996); *Universal Service Order*, 12 FCC Rcd. at 8783-84 ¶ 9.

infrastructure? In this context, should we consider whether a particular intercarrier compensation regime is technologically and competitively neutral?

34. It also seems appropriate to consider the degree of regulatory intervention required to implement various interconnection regimes. Some regimes require extensive regulatory intervention, while others are more market-oriented and thus largely self-administering. Market-oriented solutions may provide more timely adjustments and avoid distortions resulting from incorrect or outdated regulatory decisions. They may also avoid substantial litigation costs. Certain types of regulatory decisions are especially problematic—*e.g.*, the allocation of common costs among services or users. There is precedent for resolving problems such as common cost allocation, or possible market power in some market segments, by creating a demarcation. For example, customer premises equipment (CPE) was deregulated by separating it from the market for local exchange services.⁵² Bill and keep would similarly provide a demarcation between networks, so that regulators need not allocate costs. We invite comment on the weight we should give to such considerations, as well as on the extent to which particular proposals require regulatory intervention.

35. It also appears reasonable to consider whether a particular intercarrier compensation proposal would resolve the difficult issues that characterize current intercarrier compensation regimes. Related to this, it appears reasonable to ask whether a particular pricing proposal is likely to create new problems. We seek comment on these observations. We also invite parties to suggest alternative goals that the Commission should consider in evaluating alternative intercarrier compensation regimes.

36. Finally, many of those advocating the need for reforming existing intercarrier compensation rules argue that, with the introduction of local competition and new technologies (including packet-switched networks that are used for both voice and data), it has become essential to adopt a single, unified approach to intercarrier compensation.⁵³ We seek comment on this view. In particular, we invite comment on the possible advantages and disadvantages of moving to a single, unified approach to intercarrier compensation.

B. Bill-and-Keep Arrangements

1. Policy Justifications for a Bill-and-Keep Regime

37. CPNP regimes may be viewed as implicitly embracing the premise that the originating caller receives all the benefits of a call and should, therefore, bear the costs of both origination and termination.⁵⁴ Under this reasoning, the originating LEC pays the terminating telecommunications carrier and presumably recovers the payment from the rates charged to the originating caller. We question this assumption. If a caller telephones a catalog merchant, surely that merchant benefits at least as much as the caller. When a LEC terminates a call originating

⁵² See *infra* ¶ 41.

⁵³ See DeGraba, *supra* note 18, at 25 ¶ 85

⁵⁴ We note, however, that with respect to LEC-to-CMRS calls, CPNP typically does not assign the full cost to the originating carrier and caller. CMRS firms typically still charge their own subscribers for incoming calls.

on the network of another LEC, it provides a benefit to both the originating caller *and* to its customer, the called party. As a consequence, there may be no reason why *both* LECs should not recover the costs of providing these benefits directly from their end users. Bill-and-keep provides a mechanism whereby end users pay for the benefit of making *and* receiving calls. Therefore, we seek comment on whether both the calling and the called party benefit from a call, and on the implications that cost causality has for choice of an intercarrier payment regime.

38. An intercarrier compensation regime that involves termination payments may create the opportunity to exploit undesirable pricing power for the terminating carrier. A terminating carrier has a sort of monopoly over the loop serving its end user: any interconnecting carrier that wishes to reach that customer *must* use that carrier's network. While end users can choose carriers, an interconnecting carrier *must* use the carrier that the end user has selected if it is to deliver traffic to the end user at all. Thus, the originating carrier cannot itself avoid unreasonable terminating charges. Moreover, where the originating carrier is effectively unable to pass on to the calling parties any terminating charges because of flat rate pricing and rate averaging, then the callers see no market price signals giving them an incentive to avoid those costs. In this situation, unreasonable termination charges may persist. Furthermore, per-minute reciprocal compensation rates may also give carriers the opportunity and incentive to leverage their position by seeking end users with disproportionately incoming traffic. Such artificial incentives may indeed have contributed to the current imbalances in traffic exchanged between ILECs and CLECs.⁵⁵ We seek comment on these observations.

39. Proponents of bill and keep claim that it can enable regulators to avoid two difficult problems.⁵⁶ The first is the allocation of common costs among services. The traditional approach to interconnection requires viewing intercarrier calls (local or long-distance) as services among the many others that carriers market to end users. This makes most network costs (particularly loop costs) common costs to be allocated among these various services. Markets make such allocations correctly, proponents argue. Regulators, however, cannot know enough relevant detail about specific market conditions.” This problem is intensified by the rule that the calling party's network pays the entire cost of the call. Because this cost includes an allocation of common costs, the calling party's network pays a share of the common costs of the called party's network. There is no perfect solution to these cost allocation problems, largely because regulators cannot know how benefits are distributed between the parties. That is, regulators cannot see individuals' demand functions. Any allocation that a regulator can make is arbitrary (in the economic sense), yet even a small allocation error can produce massive distortions. Proponents argue that an efficient bill-and-keep regime spares regulators the necessity of allocating common costs.

⁵⁵ See *ISP Intercarrier Compensation Order* at ¶¶ 75-76; *CLEC Access Charge Order* at ¶ 2%-3.

⁵⁶ Atkinson-Barnekov, *supra* note 43, at 4-6 ¶¶ 9-11.

⁵⁷ Proponents argue that even if regulators could gather the relevant data, it would be out of date before they could assemble it. The genius of markets is their ability to make rapid, decentralized decisions that are efficient. See Friedrich A. Hayek, *The Use of Knowledge in Society*, AMERICAN ECONOMIC REVIEW, XXXV, No. 4 at 519-30 (Sept. 1945).

40. The second problem avoided by bill and keep, according to proponents, is the sense that end users have no direct control over access arrangements under current regimes. Under the access charge regime, IXCs must purchase access from LECs on both the originating and terminating ends of calls. IXCs must average the access charges they pay, so that IXC customers pay the same rate whether they call to, or from, a high-cost or low-cost LEC. IXCs may not pass through the access charges incurred on a particular call to the end user who makes that call. For local traffic, the current reciprocal compensation rules produce similar results. Thus, even if an omniscient regulator could discern the correct intercarrier cost allocations, these would not necessarily result in correct end user rates. The parties to a call are not empowered, under current arrangements, to choose the lowest-cost means of completing a call with the quality and other characteristics that they prefer. Therefore, correct intercarrier cost assignments cannot even assure efficient outcomes under current arrangements, because end users have no direct control over their access arrangements.

41. Bill-and-keep proposals may be seen as following the precedent of the Commission's 1980 *Computer II* decision that deregulated CPE.⁵⁸ This decision was equivalent to mandating interconnection with customer-owned CPE, and setting a zero interconnection rate for CPE.⁵⁹ That is, local carriers could no longer charge for, or control, the end user's purchase or use of CPE meeting FCC technical standards. Prior to 1980, LECs priced CPE usage as many discrete services. The resulting common cost allocation problems were insoluble, and pricing was based primarily on marketing estimates of demand elasticities for particular services. *Computer II* gave customers complete control of (and responsibility for) the wiring and equipment on their side of the network interface device (NID).⁶⁰ This decision also eliminated the cost allocation problems involving CPE. Atkinson-Barnekov suggest that, **just** as CPE was separated from local service, an efficient bill-and-keep regime can separate inter-network interconnection from local service in a manner that resolves common cost allocation problems. Such a regime also gives end users direct control over their access arrangements—*i.e.*, the ability to choose carriers on the basis of services and costs.

2. Re-examining the Efficiencies of Bill-and-Keep Arrangements

42. *Termination Costs.* As discussed above, traditional economic analyses of intercarrier compensation viewed bill-and-keep arrangements as inefficient in general because they did not require the calling party and her network to pay the cost of the terminating carrier. This meant that the originating carrier was likely to overuse other carriers' termination facilities. The one exception, where bill and keep was viewed as efficient, was where there were no traffic-sensitive costs of termination. The Commission adopted this analysis in the *Local Competition Proceeding*, though for reasons of administrative economy, it also permitted bill-and-keep arrangements where the traffic between two networks is relatively balanced while the rates are symmetric.⁶¹

⁵⁸ See Atkinson-Barnekov, *supra* note 43, at 6 ¶ 12.

⁵⁹ GERALD W. BROCK, INTERCONNECTION AND MUTUAL COMPENSATION WITH PARTIAL COMPETITION at 17, reprinted in GERALD W. BROCK, THE ECONOMICS OF INTERCONNECTION (Teleport Communications Group 1995).

⁶⁰ See generally Brock, *supra* note 6, at 79-101.

⁶¹ See 47 C.F.R. § 51.713; *Local Competition Order*, 11 FCC Rcd. at 16028-29 ¶¶ 1063-64.

43. Subsequent to the release of the Commission's *Local Competition Order*, a number of developments have occurred that may justify our re-examining this conclusion about the inefficiencies of bill and keep. For example, we have seen large Internet backbone providers enter into peering arrangements. Similarly, certain ILECs have proposed bill-and-keep arrangements for certain classes of traffic.⁶² Finally, the OPP working papers summarized above have suggested justifications for bill-and-keep arrangements. In light of these developments, we seek comment on our earlier conclusion in the *Local Competition Order*.

44. More specifically, we seek comment first on possible reasons or rationales why bill-and-keep arrangements may be efficient. For example, we seek comment on the rationales contained in the DeGraba and Atkinson-Barnekov working papers. We also seek comment on any other rationales for finding bill and keep efficient. With respect to any justification of bill and keep, we ask that parties explain the conditions under which the justification holds. For example, would a particular rationale hold if (1) only one party to the call benefited from the call; (2) the two interconnected networks had unbalanced traffic; (3) the two networks had dissimilar costs or cost structures (*e.g.*, one network exhibited significant economies of scale); or (4) the two networks offered different qualities of service? Thus, for any proposed justification, we ask the parties to state the conditions where bill and keep would be efficient (and in what sense), and the conditions where bill and keep would not be efficient.

45. Finally, we seek comment on whether bill-and-keep arrangements would preclude efficient forms of price discrimination. We note that regulators have historically recognized that it may be efficient to charge different prices to different users in order to recover the fixed cost of the network.⁶³ We seek comment on whether the potential efficiency gains of such non-uniform pricing are outweighed by the benefits of bill-and-keep arrangements.

46. *Transport Costs.* As previously noted, there are a number of different approaches to the treatment of transport costs under bill and keep. For example, DeGraba suggests that the calling party's network should be responsible for the cost of transporting the call to the called party's central office. A second approach would be for the parties to split the cost of transport equally. For example, the Atkinson-Barnekov proposal, requiring that the incremental cost of interconnection be split, leads under certain assumptions to an equal division of transport costs. A third approach would be for the interconnecting networks to share the cost of transport based on their relative balance of peak traffic. We invite parties to suggest alternative approaches to allocating transport costs. Parties are strongly encouraged to comment on any alternative approaches offered by other parties, as the latter may contain aspects that the Commission will choose to pursue.

47. DeGraba acknowledges that his proposed rule for transport is inefficient, but argues that it will create incentives for interconnecting carriers to agree on a more economical

⁶² See, *e.g.*, Letter from Robert T. Blau, Vice President-Executive and Federal Regulatory Affairs, BellSouth, to Dorothy Attwood, Chief, Common Carrier Bureau, CC Docket No. 99-68 at 8-10 (filed Dec. 22, 2000) (proposing that the Commission "ramp down" to bill and keep by placing limits on the volume of dial-up Internet access calls that qualify for reciprocal compensation).

⁶³ See, *e.g.*, JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11, at 101-05, 191-95; KENNETH E. TRAIN, *supra* note 34, at 115-145.

and efficient meet-point arrangement. We seek comment on DeGraba's analysis. In particular, we seek comment on whether the potential savings offered under a meet point arrangement will induce carriers to agree to a more efficient solution to the transport problem. We also ask parties to comment on the strength and effectiveness of this incentive to negotiate a solution where traffic between the parties is unbalanced.

48. As previously indicated, Atkinson-Barnekov argue that it is efficient to require that interconnecting carriers equally split the incremental cost of interconnection. More specifically, Atkinson-Barnekov demonstrate that, under certain assumptions, their split-the-cost rule would require each network to bear equal per-subscriber costs after interconnection. More generally, they show that this rule does not distort whatever cost and quality relationship the networks had before interconnecting. They argue that the rule is competitively neutral in this sense. We seek comment on whether this conclusion holds true under other assumptions concerning network size, cost structure, and quality of service. If parties believe that the Atkinson-Barnekov results cannot be easily generalized under alternative network assumptions, we seek comment on whether their proposed rule would nevertheless result in an efficient intercarrier compensation regime.

49. More generally, with respect to the DeGraba and Atkinson-Barnekov approaches, and any alternative approaches that parties might suggest, we ask parties to comment on whether that approach is efficient, and in what sense. For example, we seek comment on whether particular approaches to allocating transport costs will generate efficient usage of the network and efficient deployment of network facilities, particularly transport facilities. We also seek comment on whether a particular approach would be competitively neutral.⁶⁴ Finally, we seek comment on whether a particular approach to allocating transport costs will likely result in entities making efficient choices between subscribing to a network as an end-user customer or interconnecting with a network as a carrier.

50. A criterion for efficient resource allocation is that the marginal benefit from consumption should equal the marginal cost of production. We seek comment on the extent to which cost sharing should be a criterion for selecting an intercarrier compensation regime. We seek comment on the importance of an interconnection regime's equitable cost distribution relative to its other efficiency properties.

51. *Transactions Costs.* Measuring and billing for terminating access invariably involves transactions costs, no matter which party to the transaction is billed. For example, with CPNP, the terminating LEC bills the originating network, whereas with COBAK, the terminating LEC bills its own customers. It is also possible that a terminating LEC may wish to bill the originating customer directly for termination services. These alternatives are not mutually exclusive, but they do involve transactions costs of measuring and billing; and notably, lower transactions costs are preferred to higher transactions costs. We invite comments on the relative sizes of transactions costs for these various alternatives, and how these transactions costs compare with other efficiencies (or lack thereof) for the various alternatives.

⁶⁴ In responding to this question, we ask parties to explain what they mean by "competitively neutral."

3. Bill and Keep as a Solution to Existing Interconnection Issues

52. We also ask parties to comment on whether bill and keep in general, or specific bill-and-keep proposals, will resolve, in whole or in part, existing interconnection problems. Both DeGraba and Atkinson-Barnekov argue that their versions of bill and keep will eliminate or ameliorate most of the regulatory arbitrage opportunities caused by existing interconnection regulations. More specifically, DeGraba contends that COBAK both will eliminate the regulatory advantage that IP telephony currently has over traditional long-distance service, and, by eliminating termination charges, will solve or reduce the ISP reciprocal compensation problem and the “one-way-network” problem.⁶⁵ Similarly, Atkinson-Barnekov argue that their proposal will significantly dampen current schemes to evade access charges.⁶⁶ We seek comment on these assertions. In particular, we seek comment on whether bill-and-keep arrangements in general, or specific forms of bill and keep, will solve or reduce these problems. We also seek comment on whether COBAK or other forms of bill and keep will reduce incentives, created by the existing system of interconnection regulation, for carriers to invest inefficiently.

53. We also seek comment on the potential impact of bill and keep on issues raised by terminating access monopolies. DeGraba, for example, argues that, by requiring local carriers to recover the cost of termination from their end-user customers, bill and keep eliminates the terminating monopoly.⁶⁷ We seek comment on this argument. In particular, we seek comment on whether a bill-and-keep arrangement will eliminate any market power arising from the local carrier’s bottleneck control, or whether, because the terminating local carrier still possesses bottleneck control over the trunk port at the central office, a terminating local carrier could still exercise monopoly power. If it could, then are there easily implementable solutions to this problem? For example, would it be sufficient simply to prohibit the terminating carrier from charging a traffic-sensitive charge for the trunk port?

54. As Atkinson-Barnekov point out, existing interconnection regimes may distort an entity’s decision whether to subscribe as an end-user customer, or to interconnect as a network. For example, where an entity primarily or exclusively receives traffic, it may have an incentive under the current CPNP regime to claim to be a network. Both DeGraba and Atkinson-Barnekov claim that their proposals will reduce this effect.⁶⁸ We seek comment on those claims. We also seek comment on how their proposals might affect the subscription/interconnection decisions of entities that primarily or exclusively originate traffic, such as payphones.

55. DeGraba suggests that, if we move to COBAK, we should also shift from recovering termination costs through per-minute charges, to recovering termination costs through flat monthly charges.⁶⁹ This raises the issue of how moving to a bill-and-keep arrangement

⁶⁵ DeGraba, *supra* note 18, at 22-24 ¶¶ 75-83.

⁶⁶ Atkinson-Barnekov, *supra* note 43, at 26-27 ¶ 76.

⁶⁷ DeGraba, *supra* note 18, at 25-26 ¶¶ 89-90.

⁶⁸ *Id.* at 24-25 ¶¶ 84-88; Atkinson-Barnekov, *supra* note 43, at 13-14 ¶ 34 n.46.

⁶⁹ DeGraba, *supra* note 18, at 27-28 ¶ 95-96.

might affect end-user rates. For example, if we move to a bill-and-keep arrangement and recover termination costs from the called party, should we regulate the rates that carriers charge their end users for termination? Assuming that we want to continue to regulate end-user rates for dominant carriers, what is the appropriate rate structure to adopt? Should LECs recover termination costs through per-minute charges, or should we require flat monthly charges? Should we allow carriers to give customers a choice between paying per-minute rates or flat monthly rates for termination? What measures, if any, might we adopt to protect called parties from charges caused by unwanted calls?

56. An additional advantage of bill and keep, DeGraba claims, is that it eliminates the need for regulators to set the level and structure of termination rates.⁷⁰ DeGraba also claims that bill and keep reduces the incentive for carriers to overstate their termination costs, because termination costs must be recovered from end-user customers who can change carriers if rates are too high.⁷¹ Similarly, to the extent that termination costs are not incremental to interconnection, the Atkinson-Barnekov approach requires carriers to recover termination costs from their own customers, and thus, like the DeGraba approach, frees regulators from setting termination rates.⁷² We seek comment in general on these assertions.

57. DeGraba further argues that his proposal for allocating transport costs should be easy for regulators to implement, because it creates incentives for networks to agree on interconnection terms and thus frequently avoid the need for regulatory intervention.⁷³ We seek comment on this assertion. More specifically, we seek comment on DeGraba's claim that his rule will encourage networks to voluntarily negotiate interconnection agreements. We also seek comment on Atkinson-Barnekov's claims that the incremental costs of interconnection are easy to estimate, and generally will not involve incremental switching costs. For example, we seek comment on how a regulator would estimate the incremental costs of interconnection, where a CLEC interconnects with an ILEC at the ILEC's tandem switch. We seek comment on the relative merits of these assertions. Finally, with respect to any alternative method of allocating transport costs, we seek comment on the relative advantages and disadvantages of such an approach compared to the current treatment of transport costs.

4. Weighing the Potential Disadvantages of Bill-and-Keep Arrangements

58. One obvious concern about shifting to a new paradigm for intercarrier compensation is that the new approach may create new and unexpected problems, and that these new problems may outweigh the benefits of the new regime. Accordingly, in this section, we seek comment on various implementation issues or problems that are likely to arise if we should move to a bill-and-keep regime. In particular, we seek comment on certain concerns regarding the DeGraba and Atkinson-Barnekov proposals.

⁷⁰ Id. at 26-27 ¶¶ 91-93.

⁷¹ Id. at 27-29 ¶¶ 94-101.

⁷² Atkinson-Barnekov, *supra* note 43, at 15-16 ¶¶ 39-40.

⁷³ DeGraba, *supra* note 18, at 21-22 ¶ 73.

59. As DeGraba points out, two implementation issues associated with **COBAK** are: (1) how to define the central office; and (2) whether COBAK creates an incentive for carriers to locate central offices **inefficiently**.⁷⁴ DeGraba notes that COBAK's rules for allocating the cost of transporting the call may create an incentive for a carrier either to claim that the central office is close to its customer, or to physically locate the central office close to its **customer**.⁷⁵ The issue of how to treat such "host-remote" switches illustrates this problem. First, parties are likely to disagree as to whether a remote switch is a central office, because a remote switch possesses different functionalities than a host, and in particular, because a remote switch is not interconnected directly with other remotes. Second, if we were to decide that only host switches qualify as a central office, then this might deter networks from deploying host-remote configurations which might otherwise be the most efficient switching technology currently available. A related issue can arise in the case of a network that chooses to deploy switches to serve subscribers over a large geographic area. Under COBAK, a remote network seeking interconnection would be required to carry traffic to this switch. DeGraba suggests that this could be resolved by allowing networks to assess toll charges for such **transport**.⁷⁶ Alternatively, COBAK could be interpreted to apply only to networks maintaining switches in singular, well-defined local calling areas. We seek comment on these concerns and invite parties to recommend alternative solutions.

60. A second implementation issue raised by DeGraba concerns unwanted calls.⁷⁷ Under the current CPNP regime, called parties generally do not pay for unwanted calls.⁷⁸ Under the DeGraba proposal, unwanted calls may increase because the costs imposed on calling parties are reduced. In addition, it is possible (depending on the retail rate structure) that called parties may have to pay traffic-sensitive charges for unwanted calls. We seek comment on the extent to which this is likely to be a problem, and invite parties to suggest ways to alleviate this problem.

61. Finally, DeGraba acknowledges that, at least until competition in transport develops further, it may be necessary to regulate the transport rates charged by **ILECs**.⁷⁹ He argues, however, that this would require no additional regulation of ILECs beyond what is required under existing CPNP regimes, and no additional regulation of end-user rates by **CLECs**.⁸⁰ We seek comment on this analysis.

⁷⁴ *Id.* at 30-32 ¶¶ 103-112.

⁷⁵ *Id.* at 30 ¶ 103.

⁷⁶ *Id.* at 31-32 ¶ 110.

⁷⁷ *Id.* at 33-34 ¶¶ 117-119.

⁷⁸ We note that CMRS subscribers may be required to pay for unwanted calls under CPNP regimes. That **is**, even under CPNP, CMRS subscribers may **still** pay directly for termination. However, market solutions to the unwanted call problem have emerged, such as first-incoming-minute-free pricing plans.

⁷⁹ DeGraba, *supra* note 18, at 34 ¶¶ 120-21

⁸⁰ *Id.*

62. Atkinson-Barnekov emphasize the distinction between the “costs incremental to *traffic* and costs incremental to *interconnection*,”⁸¹ and they argue that only the costs incremental to *interconnection* should be split between carriers.⁸² Underlying their analysis of the incremental cost of interconnection is the concept of a “fully provisioned network,” which essentially is a network with such sufficient capacity that “any subscriber can always complete a call to any other subscriber who is not already engaged in a conversation.”⁸³ We seek comment on Atkinson-Barnekov’s distinction between costs incremental to traffic and costs incremental to interconnection, and on their concept of a “fully provisioned network.” In particular, we seek comment on how a regulator or arbitrator, in trying to determine the incremental costs of interconnection, would apply these concepts. We also seek comment on how this approach would be extended to interconnection arrangements between networks with different structures. Finally, we seek comment on how a regulator would resolve disputes between carriers concerning the incremental cost of interconnection.

63. Both DeGraba and Atkinson-Barnekov argue that their proposals would not preclude various end-user pricing schemes, such as calling-party-pays options or 800 numbers.⁸⁴ We seek comment on this claim. We also seek comment on whether the adoption of a bill-and-keep arrangement would generate new billing or collection problems for carriers, particularly where a carrier seeks to charge an entity that is not its customer.

64. We seek comment on whether the DeGraba or Atkinson-Barnekov proposals will generate other new problems. For example, if we move to a bill-and-keep arrangement for ISP-bound traffic, as proposed below, will this cause carriers to increase the rates they charge ISPs, which could then result in higher Internet access prices? To the extent that Internet access prices would rise, is the increase likely to take the form of a higher flat rate, or is it likely to result in the introduction of traffic-sensitive rates? Finally, to the extent that parties suggest other bill-and-keep arrangements, we ask them to identify any new problems that such an arrangement is likely to generate, and to suggest ways of dealing with those problems. Parties should provide concrete evidence and explanations for their calculations and assumptions.

65. We seek comment on the possible application of a bill-and-keep regime to LEC-CMRS interconnection. We note that the concerns motivating this *NPRM* primarily stem from certain wireline interconnection situations, particularly those involving LEC-ISP interconnection. The LEC-CMRS interconnection challenge may be different from that of interconnecting wireline carriers. For example, we are not aware of complaints against CMRS carriers for excessive termination rates—even in unregulated interconnection arrangements—or for engaging in regulatory arbitrage. Thus, there may be less of an imperative to apply a new regime to LEC-CMRS interconnection where significant problems do not exist. We also seek comment on the

⁸¹ See Atkinson-Barnekov, *supra* note 43, at 18 ¶ 48.

⁸² *Id.* at 15 ¶ 39.

⁸³ *Id.* at 9 ¶ 22. Atkinson-Barnekov note that, should interconnection result in an increased demand for calling, the costs of expanding the network to handle **such** increased demand without any blocking should be classified as costs incremental to traffic volume, but *not* incremental to interconnection. *Id.* at 18-19 ¶ 49.

⁸⁴ DeGraba, *supra* note 18, at 11-12 ¶ 32; Atkinson-Barnekov, *supra* note 43, at 25 ¶ 68.

ability or inability of CMRS carriers to obtain adequate compensation for local call termination under COBAK, BASICS, and other bill-and-keep regimes.

5. Bill and Keep for ISP-Bound Traffic

66. The record developed in the *ISP Intercarrier Compensation* proceeding strongly suggested that we should consider adopting a bill-and-keep compensation rule for ISP-bound traffic.⁸⁵ We now believe that adopting such a rule is the correct policy choice because the exchange of reciprocal compensation payments appears to have distorted the development of competition in the local exchange market. Thus, we propose to adopt a bill-and-keep arrangement for all ISP-bound traffic. We seek comment on this proposal. We also seek comment on the implications of adopting bill and keep for ISP-bound traffic in the absence of a unified bill and keep regime for other, non-ISP-bound traffic.

67. Some parties note that compensation rates applicable to ISP-bound traffic have fallen,⁸⁶ and that undesirable incentives will be reduced as rates start to approach a LEC's actual costs. We believe, however, that even reduced rates will serve only as an approximation of a LEC's actual costs, and will not, in any event, reflect the LEC's opportunity to recover its costs from its end-user customers. Current compensation rates are based on average ILEC costs, and are assessed per-minute, which tends to overstate the costs of calls of longer duration. We therefore believe that as long as LECs are able to recover the cost of delivering such traffic from other LECs, they may have an incentive to target customers for whom termination costs are lower than average, and who predominantly receive traffic. We also note that ILECs seem less able than CLECs to shift any costs of serving ISP customers to other carriers because ILECs serve many more ISP subscribers and would only receive reciprocal compensation when a CLEC customer calls an ISP served by an ILEC. We seek comment on this reasoning.

68. Some commenters suggest that there has until now been a relationship between the payments that ILECs have had to make with respect to ISP-bound traffic, and the prices at which ILECs are willing to offer unbundled network elements (UNEs). These commenters believe that this relationship must be maintained in order to avoid opportunistically high UNE rates." We therefore seek comment regarding what effect, if any, a bill-and-keep approach to ISP-bound traffic will have on ILEC incentives to support lower UNE rates. We believe that a bill-and-keep approach to ISP-bound traffic will not compromise the ability of state commissions to rely on the cost studies that ILECs have submitted over the past 12-24 months in support of lower rates for reciprocal compensation and UNEs. We seek comment on this reasoning.

⁸⁵ *ISP Intercarrier Compensation Order* at ¶ 2

⁸⁶ See *Allegiance Telecorn, Inc., et al. ex parte* in CC Docket No. 99-68 at 1, Attachment B (filed Oct. 20, 2000) (comparing initial reciprocal compensation rates with greatly reduced rates that have been established more recently in several states).

⁸⁷ See, e.g., *AT&T ex parte* in CC Docket No. 99-68 at 5-6 (filed Aug. 11, 2000).

6. Bill and Keep for Traffic Subject to Section 251(b)(5)

69. In light of the current imbalances in traffic exchanged among interconnected networks, and the potential for inefficient incentives under the existing per-minute reciprocal compensation rates, we generally seek comment on the relative benefits of bill and keep for all traffic subject to section 251(b)(5),⁸⁸ versus the current per-minute reciprocal compensation rates imposed by most states. We seek comment from state commissions, in particular, regarding the benefits of either approach. We ask that parties discuss the incentives provided by each approach to intercarrier compensation. We also seek comment on the benefits of each approach in promoting competition and negating the effects of market power. We ask that commenters discuss the relative benefits of bill-and-keep and per-minute reciprocal compensation with respect to the pricing signals provided, and the relation between actual costs and prices determined under each approach. We seek comment on how the Commission should weigh the benefits of implementing bill and keep against any disadvantages that commenters may identify. We also seek comment on the disadvantages of applying a bill-and-keep arrangement to any particular type of traffic currently exchanged among interconnected carriers.

70. We seek comment on the best method for allocating transport responsibilities and costs among interconnected carriers under a mandatory bill-and-keep approach to reciprocal compensation. Under our current rules, the originating telecommunications carrier bears the costs of transporting traffic to its point of interconnection with the terminating carrier. If carriers must recover their transport costs from their end users, does this rule still make sense? What incentives does this rule create regarding location and number of points of interconnection (POIs)? Is there a more appropriate way to allocate transport costs?

71. Qwest argues, for example, that a bill-and-keep arrangement does not work when three carriers are involved in the transport and termination of traffic, because the middle carrier that transports the traffic from one LEC to the other does not really have a “customer” involved in the call from which it can recover costs.⁸⁹ Qwest therefore argues that the Commission should allow LECs to continue charging each other for delivering transiting traffic that originates on the networks of other carriers.⁹⁰ We ask commenters to address this and other issues related to the transport obligations of interconnected LECs under a bill-and-keep regime. CMRS carriers also originate and terminate three-carrier calls, some of which are governed by reciprocal compensation. We seek comment on the issues or problems that the current intercarrier compensation rules present for three-carrier calls. We seek comment on how bill and keep might affect such calls.

72. Under our current rules, interconnecting CLECs are obligated to provide one POI per LATA.⁹¹ Under a bill-and-keep regime, should this rule still apply? How should carriers

⁸⁸ See *supra* note 7 and accompanying text.

⁸⁹ Qwest *ex parte* in CC Docket No. 99-68. Appendix B, at ii (filed Nov. 22, 2000).

⁹⁰ *Id.*

⁹¹ 47 C.F.R. § 51.321; see also In the Matter of Application by SBC Communications Inc. *et al.* to Provide In-Region, InterLATA Services in Texas, CC Docket No. 00-65, *Memorandum Opinion and Order*, FCC 00-238 at ¶ 78. n. 174 (rel. June 30, 2000).

select points of interconnection? If a CLEC chooses a point of interconnection outside a local calling area, should the LEC be obligated to meet the CLEC there? Or, should the CLEC be required to locate in every local calling area, or pay the ILEC transport and/or access charges if it does not? CMRS carriers may have several switches per MTA, which can comprise several states and multiple LATAs. Should originating carriers be required to deliver calls to all of a CMRS carrier's POIs? Should the Commission promulgate rules governing the technical requirements of interconnection, as it does for interconnection between CPE and the public switched telephone network?⁹² We seek comment on how the costs of interconnection should be allocated between carriers in this context. We seek comment on how carriers will allocate the costs of actual interconnection facilities. In addition, we seek comment on how the costs for internal network upgrades necessary for interconnection should be allocated.⁹³

73. Section 251(b)(5) provides that each LEC has the duty to "establish reciprocal compensation arrangements for the transport and termination of telecommunications."⁹⁴ In addition, section 252(d)(2) states that, for the purpose of ILEC compliance with section 251(b)(5), the terms and conditions for reciprocal compensation must: (1) provide for the "mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the carrier"; and (2) "determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls."⁹⁵ Section 252(d)(2)(B)(i) further provides that the foregoing language shall not be construed "to preclude arrangements that afford the mutual recovery of costs through the offsetting of reciprocal obligations, including arrangements that waive mutual recovery (such as bill-and-keep)."⁹⁶ The legislative history of the 1996 Act indicates that the term "mutual and reciprocal recovery of costs" includes "a range of compensation schemes, such as in-kind exchange of traffic without cash payment (known as bill-and-keep arrangements)."⁹⁷

74. In the *Local Competition Order*, the Commission rejected claims that the Commission and states lack the authority to mandate bill-and-keep arrangements under any circumstances.⁹⁸ It instead found that in some circumstances, bill-and-keep arrangements can be imposed in the context of the arbitration process for termination of traffic.⁹⁹ The Commission

⁹² See generally 47 C.F.R. Part 68.

⁹³ See Atkinson-Barnekov, *supra* note 43, at 13-14 (showing that the incremental cost of interconnection includes internal provisioning necessary to handle traffic exchanged with the interconnecting carrier).

⁹⁴ 47 U.S.C. § 251(b)(5).

⁹⁵ 47 U.S.C. § 252(d)(2).

⁹⁶ 47 U.S.C. § 252(d)(2)(B)(i).

⁹⁷ See S. Rep. No. 230, 104th Cong., 2nd Sess. 125 (1996), reprinted in A&P S. Rep. 104-230, 125 (1996).

⁹⁸ *Local Competition Order*, 11 FCC Rcd. at 16054. See also BellSouth Local Competition Comments in CC Docket No. 96-98 at 73-75; GTE Local Competition Comments in CC Docket No. 96-98 at 56-59; SBC Local Competition Comments in CC Docket No. 96-98 at 51-53.

⁹⁹ *Local Competition Order*, 11 FCC Rcd. at 16054.

reasoned that “as long as the cost of terminating traffic is positive, bill-and-keep arrangements are not economically efficient because they distort carriers’ incentives, encouraging them to overuse competing carriers’ termination facilities by seeking customers that primarily originate traffic.”¹⁰⁰ The Commission found, nevertheless, that “in certain circumstances, the advantages of bill-and-keep arrangements outweigh the disadvantages.”¹⁰¹ For instance, the Commission recognized that “bill-and-keep arrangements may minimize administrative burdens and transaction costs,” when traffic is in balance and symmetrical rates are applied.¹⁰²

75. We believe that bill-and-keep arrangements also provide for the “mutual and reciprocal recovery of costs associated with the transport and termination of traffic” when traffic is not in balance. We therefore seek comment on whether a bill-and-keep rate structure for traffic subject to section 251(b)(5) is consistent with the 1996 Act. We ask commenters to discuss whether a bill-and-keep regime satisfies both the requirement for carriers to provide “reciprocal compensation” under section 251(b)(5), and the reciprocal compensation pricing standards set forth in section 252, even when traffic is not in balance. To what extent are carriers entitled to asymmetric reciprocal compensation under the Communications Act if they can establish additional costs of terminating calls on their networks? We note that the statute explicitly identifies bill and keep as one arrangement that affords “the mutual recovery of costs through the offsetting of reciprocal obligations”¹⁰³: one party terminates the other’s calls and vice-versa, thus providing for “in-kind” reciprocal compensation. It may be, however, that the statute does not permit the imposition of bill-and-keep where there is a significant imbalance in the traffic exchanged among interconnected LECs.¹⁰⁴

76. We therefore seek comment on whether bill and keep provides for the “*mutual and reciprocal* recovery” of costs,¹⁰⁵ when traffic is not in balance. In particular, we ask parties to address whether the opportunity to recover costs from end users “afford[s] the mutual recovery of costs.” To the extent that recovery from end users is consistent with the statute, what implication does this method of cost recovery have for retail rate levels and rate structures? We also seek comment on whether a bill-and-keep arrangement “affords the *mutual* recovery of costs through the *offsetting* of reciprocal obligations”¹⁰⁶ when traffic is not in balance, or whether the use of the term *offsetting* implies that traffic must be balanced.

¹⁰⁰ See *Local Competition Order*, 11 FCC Rcd. at 16055. Several commenters also argued that bill-and-keep arrangements could not be mandated without violating the 1996 Act. See, e.g., SBC Comments in CC Docket No. 96-98 at 51-52.

¹⁰¹ See *Local Competition Order*, 11 FCC Rcd. at 16055.

¹⁰² *Id.*

¹⁰³ 47 U.S.C. § 252(d)(2)(B).

¹⁰⁴ For example, Time Warner suggests that a bill-and-keep approach to reciprocal compensation is not consistent with Section 251(d)(2)(B)(i), 47 U.S.C. § 252(d)(2)(B)(i), when traffic is not in balance because it does not “*afford the mutual recovery of costs* through the offsetting of reciprocal obligations.” Time Warner *ex parte* in CC Docket No. 99-68 at 4 (filed Oct. 20, 2000).

¹⁰⁵ See 47 U.S.C. § 252(d)(2)(A)(i).

¹⁰⁶ See 47 U.S.C. § 252(d)(2)(B)(i).

77. We seek comment on whether the imposition of bill-and-keep regime would require that the Commission forbear from section 252(d)(2)'s "additional cost" pricing standard. In addition, we seek comment on whether the prohibition on forbearance from section 271,¹⁰⁷ a statutory section that references section 252(d)(2), makes imposition of bill and keep legally problematic.

7. Commission Authority Over LEC-CMRS Interconnection

78. In recent submissions to the Commission, the Cellular Telecommunications and Internet Association (CTIA) urges the Commission to immediately replace the existing reciprocal compensation mechanism for LEC-CMRS interconnection with a bill-and-keep regime.¹⁰⁸ In a December 12 letter,¹⁰⁹ CTIA contends that the Commission has exclusive and plenary jurisdiction to regulate LEC-CMRS interconnection under section 332(c)(1)(B) of the Communications Act, and *Iowa Utils. Bd. v. FCC*.¹¹⁰ CTIA further argues, in a December 29 letter, that the Commission has exclusive authority to establish the terms of, and to review, LEC-CMRS interconnection agreements.¹¹¹ In this portion of the *NPRM*, we review and seek comment on the Commission's authority over LEC-CMRS interconnection and, specifically, on the issues raised by the two CTIA letters.

a. Background

79. In 1993, Congress adopted amendments to section 332 of the Communications Act in the 1993 Budget Act.¹¹² The Budget Act amendments, *inter alia*, included new section 332(c)(1)(B) concerning interconnection between CMRS providers and common carriers, and new section 332(c)(3) preempting certain types of state regulation of CMRS providers. In 1994, we released the *CMRS Second Report and Order*, which implemented the 1993 Budget Act.¹¹³ In the *CMRS Second Report and Order*, we ordered that, pursuant to section 201 of the Communications Act, common carriers must provide the type of interconnection reasonably requested by any CMRS provider.¹¹⁴ We also required LECs and CMRS providers to

¹⁰⁷ 47 U.S.C. § 10(c).

¹⁰⁸ Letter from Thomas E. Wheeler, CTIA, to Chairman William E. Kennard (Dec. 12, 2000) ("December 12 letter"); Letter from Michael F. Altschul, CTIA, to Chairman William E. Kennard (Dec. 29, 2000) ("December 29 letter").

¹⁰⁹ December 12 letter at 2-3.

¹¹⁰ *Iowa Utils. Bd. v. FCC*, 120 F.3d at 800 n.21.

¹¹¹ December 29 letter at 1.

¹¹² Omnibus Budget Reconciliation Act of 1993, Pub.L. No. 103-66, Title VI, § 6002(b)(2)(A), 6002(b)(2)(B), 107 Stat. 312 (1993).

¹¹³ In the Matter of Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, GN Docket No. 93-252, Second *Report and Order*, 9 FCC Rcd. 1411 (1994) ("CMRS *Second Report and Order*").

¹¹⁴ *Id.* at 1497 ¶ 227.

compensate one another for the reasonable costs incurred in terminating the others' traffic.'¹⁵ As a matter of enforcement, we stated that under section 208 of the Communications Act, if a complainant could demonstrate that a LEC was charging different rates for the same type of interconnection, then the LEC would shoulder the burden of showing that the variance in its charges did not constitute unreasonable discrimination in violation of section 202(a) of the Communications Act.'¹⁶ Finally, we held that a LEC could not deny a CMRS provider a form of interconnection that it provided to another carrier, unless the LEC could show that the provision of such interconnection was either technically infeasible or economically unreasonable.'"

80. Subsequently, in the *LEC-CMRS Interconnection NPRM*, we observed that section 332 explicitly preempts state regulation that effectively precludes CMRS entry; that state regulation which precludes reasonable interconnection would be inconsistent with the federal right to interconnect established by section 332 and the Commission's prior decisions; and that preemption of intrastate regulation may be warranted on the basis of inseverability.¹¹⁸ As one option, we sought comment on whether we should require that LEC-CMRS interconnection be on a bill-and-keep basis.'"

81. Shortly thereafter, the **1996** Act became law. In the *Local Competition Order*, we noted our jurisdiction to regulate LEC-CMRS interconnection under section 332, but decided to apply sections 251 and 252 to LEC-CMRS interconnection.¹²⁰ At that time, we declined to delineate the precise contours of, or the relationship between, our jurisdiction over LEC-CMRS interconnection under sections 251 and 332, but made clear that we were not rejecting section 332 as an independent basis for jurisdiction.¹²¹ Thus, we promulgated rules governing LEC-CMRS interconnection under the newly enacted sections 251 and 252, rather than under section 332. This approach would, we believed, facilitate consistent resolution of interconnection issues for CMRS providers and other carriers.¹²² We reserved the right, however, to revisit invoking our jurisdiction under section 332 to regulate LEC-CMRS interconnection, if circumstances should so warrant.¹²³ We noted, for example, that section 332 generally precludes states from rate and entry regulation of CMRS providers, differentiating

¹¹⁵ *Id.* at 14981231.

¹¹⁶ *Id.* at ¶ 233.

¹¹⁷ *Id.* at ¶ 234.

¹¹⁸ In the Matter of Interconnection Between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket No. 95-185, *Notice of Proposed Rulemaking*, 11 FCC Rcd. 5020, 5072-73 ¶ 111 (1996) ("*LEC-CMRS Interconnection NPRM*").

¹¹⁹ *Id.* at 5049-50 ¶¶ 60-62.

¹²⁰ *Local Competition Order*, 11 FCC Rcd. at 16005-06; *see also Iowa Utils. Bd. v. FCC*, 120 F.3d at 800 (finding that the Commission has jurisdiction under section 332 to issue rules regarding LEC-CMRS interconnection, including reciprocal compensation rules).

¹²¹ *Local Competition Order*, 11 FCC Rcd. at 16005.

¹²² *Local Competition Order*, 11 FCC Rcd. at 16005 ¶ 1024.

¹²³ *Id.* at 16006 ¶ 1025.

CMRS from other carriers. If the regulatory scheme established by sections 251 and 252 did not sufficiently address the problems encountered by CMRS providers in obtaining interconnection on just, reasonable and nondiscriminatory terms and conditions, we indicated that we might consider invoking jurisdiction under section 332 to regulate LEC-CMRS interconnection rates.¹²⁴

82. Several parties sought judicial review of various aspects of the *Local Competition Report and Order*. These petitions were consolidated before the Eighth Circuit Court of Appeals.¹²⁵ In *Iowa Utils. Bd. v. FCC*, the court concluded that certain of the rules promulgated in the *Local Competition Proceeding* exceeded our jurisdiction under sections 251 and 252 of the 1996 Act and that, in imposing other rules, the Commission substantively misinterpreted its jurisdiction under sections 251 and 252.¹²⁶ At the same time, the court held that section 332(c), read in combination with section 2(b), gave the Commission independent authority to promulgate rules governing LEC-CMRS interconnection.¹²⁷ In arguments before the court, CMRS providers had claimed that several of the Commission's rules were especially crucial to LEC-CMRS interconnection, and therefore should be upheld in that context even if they were otherwise struck down.¹²⁸ The court noted that these particular rules "of special concern to the CMRS providers" would continue to apply to interconnection involving those providers.¹²⁹ This CMRS interconnection aspect of the Eighth Circuit's decision was not appealed to the Supreme Court, nor addressed by the Court in *AT&T v. Iowa Utils. Bd.*¹³⁰

83. As noted above, in its letters advocating a bill-and-keep regime for LEC-CMRS intercarrier compensation, CTIA contends that the Commission has exclusive jurisdiction to regulate the rates for interconnection between CMRS providers and LECs, pointing to the 1993 Budget Act and the *Zowa Utils. Bd. v. FCC* decision. CTIA argues that Congress, in amending section 332 and section 2(b), established a federal regulatory framework to govern the offerings of all commercial mobile services because these services operate without regard to state lines as an integral part of the nation's telecommunications infrastructure. CTIA further argues that the Eighth Circuit's interpretation of section 332 recognizes the Commission's broad authority to preempt state rate and entry regulation of CMRS. CTIA posits that, because the Commission has exclusive jurisdiction, there is no role for states to regulate LEC-CMRS interconnection.¹³¹

¹²⁴ *Id.*

¹²⁵ *Iowa Utils. Bd. v. FCC*, *supra* note 8.

¹²⁶ *Id.*

¹²⁷ *Id.* at 800 n.21.

¹²⁸ See Brief for Intervenor CMRS Providers in Support of Respondents, *Iowa Utils. Bd. v. FCC*, Nos. 96-3321 *et al.* (8th Cir. Dec. 23, 1996).

¹²⁹ *Iowa Utils. Bd. v. FCC*, 120 F.3d at 800 n.21.

¹³⁰ *AT&T Corp v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

¹³¹ December 29 letter at 2.

b. Statutory Provisions

84. The 1993 Budget Act significantly changed the regulatory framework for CMRS.¹³² In place of traditional public utility regulation, the 1993 Budget Act sought to establish a competitive nationwide market for commercial mobile radio services with limited regulation. CMRS interconnection was a significant element of this framework.¹³³ Several provisions of the Communications Act, as amended by the 1993 Budget Act, are relevant to CMRS jurisdiction issues. First, the role of the states in regulating CMRS is expressly limited by section 332(c)(3).¹³⁴ That section bars the states from regulating the entry or rates of CMRS providers, but expressly permits states to regulate other terms and conditions of service.¹³⁵ Second, section 332(c)(1)(B), on the other hand, expressly grants the Commission the authority to order carriers to interconnect with CMRS providers.¹³⁶ Finally, in the 1993 Budget Act, Congress also added an exception to section 2(b) of the Communications Act.¹³⁷ Section 2(b) generally reserves to the states jurisdiction over intrastate communication service by wire or radio of any carrier. The 1993 Budget Act amended section 2(b) to exempt section 332 from its provisions.¹³⁸

c. Discussion

85. We seek comment on the question of whether we have authority under section 332 to replace the existing reciprocal compensation mechanism for LEC-CMRS interconnection with a bill-and-keep regime, as advocated by CTIA, as well as more generally on the scope of the Commission's jurisdiction under section 332. To assist the Commission in addressing these matters, we seek comment on the following more specific issues.

¹³² *LEC-CMRS Interconnection NPRM*, 11 FCC Rcd. at 5029-30 ¶¶ 19-21.

¹³³ The House Report stated, "The Committee considers the right to interconnect an important one which the Commission shall seek to promote, since interconnection serves to enhance competition and advance a seamless national network." House Report on H.R. 2264 at 261 (1993).

¹³⁴ 47 U.S.C. § 332(c)(3).

¹³⁵ Section 332(c)(3) provides in relevant part: "Notwithstanding sections 2(b) and 221(b), no state or local government shall have any authority to regulate the entry of or the rates charged by any commercial mobile service or any private mobile service, except that this paragraph shall not prohibit a state from regulating the other terms and conditions of commercial mobile services." *Id.*

¹³⁶ 47 U.S.C. § 332(c)(1)(B). Section 332(c)(1)(B) provides in relevant part: "Upon reasonable request of any person providing commercial mobile service, the Commission shall order a common carrier to establish physical connections with such service pursuant to the provisions of section 201 of the Act. Except to the extent that the Commission is required to respond to such a request, this subparagraph shall not be construed as a limitation or expansion of the Commission's authority to order interconnection pursuant to this Act." *Id.* Section 201, in turn, provides that "[i]t shall be the duty of every common carrier engaged in interstate or foreign commerce by wire or radio...to establish physical connections with other carriers..." 47 U.S.C. § 201(a).

¹³⁷ 47 U.S.C. § 152(b)

¹³⁸ *Id.*

86. First, we seek comment on the relationship between the CMRS interconnection authority assigned to the Commission under sections 201 and 332, and that granted to the states under sections 251 and 252. In adopting sections 251 and 252, and other provisions of the 1996 Act, Congress did not repeal or amend the prior sections, and in fact adopted specific savings clauses for the Commission's interconnection authority under section 201¹³⁹ and for the preemption of state entry and rate regulation under section 332(c)(3).¹⁴⁰ But the 1996 Act did establish a general interconnection framework that is subject, in part, to state jurisdiction and which, by its terms, applies to CMRS as well as to other carriers. How should the interconnection provisions in these various sections of the amended Communications Act be applied? To the extent that policies and rules, or rates and terms, under these frameworks conflict, how should the conflicts be resolved?

87. Second, we seek comment on the extent to which section 332 preempts state regulation of intrastate LEC-CMRS interconnection and gives such authority to the Commission. We note that in *Iowa Utils. Bd. v. FCC*,¹⁴¹ the court, when affirming the Commission's authority to adopt national LEC-CMRS interconnection rules, cited sections 332(c)(1)(B) and 332(c)(3)(A) as relevant to an evaluation of the Commission's intrastate LEC-CMRS interconnection authority.¹⁴¹ We seek comment on whether this reference by the court suggests that these subparagraphs of section 332(c) preempt state CMRS intrastate interconnection jurisdiction and assign the matter to the Commission. According to CTIA, the court observed that Congress provided express Commission authority to regulate LEC-CMRS interconnection under section 332(c)(1)(B), and "concluded that *federal* regulation of CMRS rates and entry is a function of the Commission's plenary authority over communications by wire and communications by radio."¹⁴² On the other hand, because the court affirmed one rule for CMRS providers that assigns authority over "true-ups" of interim rates to state commissions, and another rule recognizing the role of state commissions in the negotiation and arbitration process,¹⁴³ do the states have some authority over interconnection, particularly when read in conjunction with sections 251 and 252?

88. Third, we seek comment on whether forbearance is appropriate in the context of LEC-CMRS interconnection. Specifically, the Communications Act gives the Commission the authority and responsibility to forbear from regulating telecommunications carriers in certain specified cases. Section 332(c)(1),¹⁴⁴ adopted by the 1993 Budget Act, permits the Commission to forbear from applying most provisions of Title II of the Communications Act to CMRS providers, while section 10 of the Communications Act,¹⁴⁵ adopted by the 1996 Act, directs the

¹³⁹ See 47 U.S.C. § 251(i).

¹⁴⁰ See 47 U.S.C. § 253(e); see also section 601(c) of the 1996 Act.

¹⁴¹ *Iowa Utils. Bd. v. FCC*, 120 F.3d at 800 n.21.

¹⁴² December 29 letter at 3.

¹⁴³ 47 C.F.R. §§ 51.715(d), 51.717(b).

¹⁴⁴ 47 U.S.C. § 332(c)(1).

¹⁴⁵ 47 U.S.C. § 160.

Commission to forbear from regulating any telecommunications carrier or service, if the Commission determines that certain conditions are met. The three-part test for forbearance is essentially identical for each section. In summary, the test is: (1) that a provision of the statute is not necessary to ensure that rates and terms are just and reasonable and not unjustly or unreasonably discriminatory; (2) that the provision is not necessary for the protection of consumers; and (3) that forbearance is in the public interest. Under both sections, the Commission may determine that the public interest will be served if it concludes that forbearance will promote competition. In this regard, section 10(e) states that “[a] State commission may not continue to enforce or apply any provision of this Act that the Commission has determined to forbear from applying under [section 10(a)].”¹⁴⁶

89. More specifically, in light of the fact that both section 332 and sections 251 and 252 appear to provide processes and standards for LEC-CMRS interconnection, we seek comment on whether the Commission should forbear from applying some or all of the provisions of sections 251 and 252 to LEC-CMRS interconnection in some or all state jurisdictions. Alternatively, we seek comment on whether we should forbear from applying some or all of section 332 to LEC-CMRS interconnection in light of sections 251 and 252, and on the extent of our authority to do so. To whatever extent that those provisions overlap, application of both provisions may be unnecessary. For example, the process of negotiating and enforcing CMRS interconnection rates and terms with over 1,200 LECs in over 50 jurisdictions probably raises costs and otherwise impedes competition among CMRS providers and other services. On the other hand, the initial round of interconnection negotiations undertaken through the regulatory framework of sections 251 and 252 has been completed and has been successful in many respects (*e.g.*, setting rates that are more equitable and cost-based). We ask commenters to address these issues, as well as whether forbearance is warranted by other regulations or provisions affecting CMRS interconnection. Commenters should also address the practical consequences of the approaches the Commission might take to exercising, or forbearing from exercising, its authority over LEC-CMRS interconnection. For example, how would interconnection “work,” and how would the rates and terms for interconnection be established?

8. LEC-CMRS Intercarrier Compensation

90. We seek comment on the rules we should adopt to govern LEC interconnection arrangements with CMRS providers, whether pursuant to section 332, or other statutory authority. Generally, we seek comment on the rules necessary to further our goal of adopting a unified approach that encourages the efficient use of, and investment in, telecommunications networks, and the efficient development of competition.

91. The *Local Competition Order* held “that the new transport and termination rules should be applied to LECs and CMRS providers so that CMRS providers continue not to pay interstate access charges for traffic that currently is not subject to such charges, and are assessed such charges for traffic that is currently subject to interstate access charges.”¹⁴⁷ **LEC-CMRS** interconnection for calls that originate and terminate in the same MTA (as of the start of a call)

¹⁴⁶ 47 U.S.C. § 160(e).

¹⁴⁷ *Local Competition Order*, 11 FCC Rcd. at 16016-17 ¶ 1043.

are governed by section 251, and are subject to reciprocal compensation. Two common types of local LEC-CMRS interconnection include: connection through a LEC (typically an ILEC) end office (Type 1); and direct mobile switching center (MSC) connection with a LEC tandem (Type **2A**). Where CMRS-LEC traffic volumes are small, as in rural areas, the CMRS carrier can connect to other LEC end offices and other carriers via a LEC end office switch.¹⁴⁸ The other interconnection alternative is a trunk between a MSC and the LEC tandem, whereby the CMRS carrier connects to LEC end offices connected to the tandem together with other carriers (including IXC's) interconnected through the tandem.

92. Under both types of LEC-CMRS interconnection, the LEC receives forward-looking economic cost- (FLEC-) based reciprocal compensation for the LEC's additional costs of terminating CMRS-originated calls. The CMRS carrier, on the other hand, is compensated at the LEC's FLEC-based rate, which is used as a presumptive proxy for the CMRS carrier's own termination costs,¹⁴⁹ unless the CMRS carrier submits a forward-looking economic study to rebut this presumptive symmetrical rate.¹⁵⁰ Local LEC-CMRS calls would presumably be governed by any new, unified bill-and-keep regime. We seek comment on whether any such regime should be applied to these types of LEC-CMRS interconnection. We also seek comment on the potential effects of a unified bill-and-keep regime on local LEC-CMRS interconnection.

93. LEC-paging traffic is exchanged largely by mutual agreement.¹⁵¹ LEC-paging interconnection are of the same three types technically as LEC-CMRS generally: Type 1 (through a LEC end office); Type **2A** (direct connection with a LEC tandem office); or Type 2B (direct connection limited to a specific LEC end office).¹⁵² Paging companies are paid terminating compensation stipulated in their mutual contractual agreements. The compensation rates vary by agreement. Some agreements stipulate charges per minutes of use.¹⁵³ Terminating

¹⁴⁸ Alternatively, in rural settings, wireless carriers can elect to deliver CMRS-originated calls to a large ILEC (typically a Regional Bell Operating Company [RBOC]) for routing to the rural LEC carrier. The large ILEC and rural LEC are interconnected on a bill-and-keep basis for the exchange of wireline calls. Once the CMRS-originated traffic is switched by the ILEC tandem, CMRS-originated traffic travels on the same trunk as wireline calls to the ILEC. The CMRS carrier pays the ILEC for switching and transport, and the rural LEC can seek recovery of its termination costs (if it can segregate the traffic) by asking the ILEC to charge the CMRS carrier. Increasingly, the large ILEC is unwilling to bill for the rural carrier, so rural LECs have begun to insist that the CMRS carrier deliver calls directly to the rural LEC's switch.

¹⁴⁹ *Local Competition Order*, 11 FCC Rcd. at ¶ 1085; 47 C.F.R. § 51.711(a).

¹⁵⁰ *Local Competition Order*, 11 FCC Rcd. at ¶ 1089; 47 C.F.R. § 51.711(b).

¹⁵¹ Where LECs and paging companies are unable to negotiate agreed-upon rates, we direct states, when arbitrating disputes under section 252(d)(2), to establish rates for the termination of traffic by paging providers based on the forward-looking economic cost of such termination to the paging provider. The paging provider seeking termination fees must prove to the state commission the costs of terminating local calls. *Local Competition Order*, 11 FCC Rcd. at ¶ 1093.

¹⁵² Columbia Institute for Tele-Information *ex parte* in CC Docket Nos. 99-68 *et al.*, "Stakeholders' Workshop on Interconnection Pricing" at Attachment 4 (filed Dec. 22, 2000).

¹⁵³ For example, Sprint and Paging Networks, Inc. have agreed to a constant \$0.00425 per minute of use in a 16-state territory. *Id.* Verizon Wireless Messaging Services and SBC have contracted for SBC to pay \$0.005 per minute of use for Type I or Type 2A interconnection, and between \$0.00174 and 0.006 per minute of use for Type **2B** interconnection. *Id.*

compensation is paid to paging companies on the basis of aggregated minutes at the end of each month. We seek comment on whether (and if so, how) a bill-and-keep regime may apply to LEC-paging interconnection arrangements.

94. We also seek comment on whether access charges, when they apply to interexchange traffic under sections 201, 251(g) and 251(i), should also apply to CMRS carriers, and to what extent. In that context, commenters should also address whether CMRS carriers are entitled to receive access charges, or some additional compensation, for interexchange traffic terminating on their networks.

95. We note that there are further examples of carrier-to-carrier interconnection involving CMRS carriers that are not currently rate-regulated. Pursuant to section 251(a), as well as sections 201(a) and 332(c), CMRS carriers have a general duty to directly or indirectly interconnect with each other. In the absence of detailed interconnection regulation, many CMRS carriers appear to have entered into voluntary interconnection agreements. Because intercarrier, local CMRS traffic is often insufficient to justify a dedicated trunk, the majority of CMRS-to-CMRS call exchange occurs through a RBOC tandem switch. Under this arrangement, CMRS carriers appear to exchange local traffic on a bill-and-keep basis. As wireless traffic is growing, however, CMRS carriers increasingly enter into direct interconnection agreements. When the traffic between these carriers justifies a trunk, wireless carriers typically interconnect directly. We understand that the recurring and non-recurring cost of the trunk line is divided among the carriers by mutual contractual agreement, and that the carriers exchange traffic on a bill-and-keep basis. No instances of unreasonable terminating charges for these CMRS-to-CMRS calls have been brought to our attention. While we do not contemplate extending compensation rules to these arrangements, we nonetheless seek comment on how well these existing unregulated bill-and-keep agreements work, and their implications for a possible unified regime. We also invite comment on why we have not seen unreasonable termination fees from CMRS firms, while we have from wireline CLECs. Finally, we seek comment on whether (and if so, how) adopting a unified bill-and-keep regime—such as COBAK or BASICS—might affect unregulated types of intra-MTA, CMRS-to-CMRS interconnection.

96. Another category of unregulated interconnected calls subject to neither reciprocal compensation nor access charges is CMRS-IXC interconnection.¹⁵⁴ For inter-MTA call traffic, CMRS carriers effectively act as resellers, buying large, volume-discounted bundles of minutes of use from IXCs, then reselling them to CMRS subscribers. We understand that the IXCs then pay any terminating access, frequently absorbing terminating access charges that exceed the wholesale, flat rates negotiated with CMRS carriers. We seek comment on whether (and if so, how) COBAK and BASICS might affect the current quasi-resale regime. We seek comment on how eliminating terminating access under bill and keep might change the frequency or terms of IXC-CMRS agreements.

9. Bill and Keep for Interstate Access Charges

97. The long-term goal of this *NPRM* is to develop a uniform regime for all forms of intercarrier compensation, including interstate access. We do not, however, anticipate

¹⁵⁴ This category of interconnected calls encompasses CMRS-to-IXC-to-a-third telecommunications carrier.

implementing major changes to our access charge rules in the initial phase of this proceeding. The CALLS plan established, for the period July 1, 2000 through June 30, 2005, interstate access rate levels and an aggregate amount of interstate universal service support for ILECs subject to price cap regulation.¹⁵⁵ The Commission recently sought comment on an industry-sponsored access reform and universal service proposal for all other ILECs; this plan would, if adopted, be implemented over a five-year period.¹⁵⁶ We begin now to explore the possible application of bill-and-keep approaches to interstate LEC-IXC interconnection, with the intention of developing an answer to the question, “What comes after CALLS?” We recognize that large ILECs, small ILECs, and CLECs are all at different stages of the access reform processes that we have carried out over the last five years. We expect that, under current rules and proposed rules, their access rate levels may be much more similar four or five years from now than they are today. If we adopt a bill-and-keep rule for the intercarrier arrangements that currently fall under the access charge rules, should we attempt to apply it at the same time, and in the same manner, for all types of LECs? Will the possible benefits of bill and keep dissipate if it is phased in over a period of years? Will a staggered approach to reforming intercarrier Compensation create certain opportunities for regulatory arbitrage? We seek comment on how best to proceed, in a coordinated manner, with this phase in the development of a pro-competitive intercarrier compensation regime.

C. Reforming the Existing Calling-Party’s-Network-Pays-Regime

98. As discussed above, traditional economic analysis and Commission precedent have favored CPNP intercarrier compensation regimes. In general, the prevailing view has been that, if a regulator sets the appropriate rate level and rate structure, a CPNP regime should be efficient.¹⁵⁷ Given the strong support CPNP regimes have received from the economic literature and from Commission precedent, we seek comment generally on whether, and how, the existing CPNP interconnection regimes can be reformed in the event that the Commission decides not to adopt bill and keep.

1. Can CPNP Regimes Be Efficient?

a. Rate Level Issues

99. *What Is the Appropriate Cost Methodology?* We note that the Commission, in implementing the reciprocal compensation provisions of the 1996 Act, determined that reciprocal compensation rates should be based on forward-looking economic costs. Similarly, while interstate access charges had been based on historical costs (as modified by the Commission’s price cap regime), the Commission in 1997 determined that access charges should likewise move

¹⁵⁵ See *CALLS Order*, *supra* note 6.

¹⁵⁶ See Multi-Association Group (MAG) Plan for Regulation of Interstate Services of Non-Price Cap Incumbent Local Exchange Carriers and Interexchange Carriers, CC Docket No. 00-256, *Notice of Proposed Rulemaking*, FCC 00-448 (rel. Jan. 5, 2001).

¹⁵⁷ See, e.g., *Local Competition Order*, 11 FCC Rcd. at 15873-77 ¶¶ 741-757. See also JEAN-JACQUES LAFFONT & JEAN TIROLE, *supra* note 11, at 101-105 (discussion and characterization of efficient access pricing under a CPNP regime).